

Climatological Data for January, 1910.
DISTRICT No. 3, OHIO VALLEY.

FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The most important weather features during the month were: First, the extraordinary snowstorm which occurred the 5-6th. Snow to the depth of 10 to 16 inches fell over the greater portion of the Ohio Valley, extending from southwestern Tennessee northward and northeastward over the greater portion of all the States bordering the Ohio River, including its affluents; second, the very cold weather which prevailed from the 6th to the 11th, especially the unusually low temperatures registered on several days during that period in northwestern Tennessee, western Kentucky, and the southern portions of Indiana and Ohio. Minimum temperatures of -10° to -20° were reported from those sections—the lowest not only in the Ohio Valley district for the season, but the lowest for a number of years. The ground was frozen and covered with snow during most of the month in the States north of the Ohio River and also over considerable areas immediately south of that river. At the end of the month snow lay on the ground to a depth of 25 inches over parts of western Pennsylvania and 10 to 20 inches over most of West Virginia and the upper Ohio drainage area. The principal damage due to weather conditions during the month was from ice jams and gorges in the Ohio River and its larger tributaries, most of which occurred during the first decade.

The snowfall during the month was from 20 to 38 inches in western New York, 24 to 57 inches in western Pennsylvania, 10 to 36 inches in West Virginia, 10 to 45 inches in Ohio, 20 to 30 inches in western Maryland, 8 to 14 inches in southwestern Virginia and North Carolina, 2 to 14 inches in Tennessee, 5 to 17 inches in Kentucky and Indiana, 2 to 10 inches in Illinois, and trace to 2.5 inches in extreme northern portions of Georgia and Alabama.

TEMPERATURE.

The temperature averaged slightly above normal for the month as a whole. The month opened mild with maximum temperatures during the first several days registering above 60° over the greater portion of the district. A strong barometric disturbance, accompanied by warm rains and followed by heavy snow, moved across the Mississippi and Ohio valleys from the southern Rocky Mountains on the 5th, immediately following which there was a decided change to colder, and quite cold weather largely prevailed until the 12th, during which period the coldest weather of the month occurred. Minimum temperatures of zero and below were registered in nearly all parts of the district, being as much as -10° to -20° in the west-central portion. During the rest of the month there were alternately moderately warm and cold periods of short duration. The coldest of these periods was the 21st-22d and the warmest, the 26-27th. In the latter period maximum temperatures again registered above 60° at many stations.

PRECIPITATION.

The precipitation for the month was above the normal in Ohio, West Virginia, Pennsylvania, eastern Kentucky, northeastern Tennessee, and southeastern Indiana. In the three first-named States the amount for the month takes rank among the greatest for any January in the history of the weather service in those States. It was below normal in Illinois, western Indiana, southwestern Kentucky, and the greater portion of Tennessee and the bordering States to the southward. The

Illinois and the Wabash section of Indiana, the amount was less than 2 inches at a few stations. Rain or snow occurred almost daily in the eastern portion of the district, especially in the higher altitudes. It was also frequent in other parts of the district, although not so often in the last decade and during the cold weather of the first decade. Precipitation was mostly in the form of snow in the first and third decades, but heavy rains occurred in the second.

General storms of importance passing over this district, or any large part of it, during the month were 7 in number. The first one moved from the southern Rocky Mountain Slope northeastward across the central valleys to the lower Lake region during the 4th to the 7th causing heavy snow, and was probably the most consequential storm of the month. The second storm moved across the central valleys during the 12th to 15th. It also came from the southern Rocky Mountain Slope, but was attended for the most part over this district by rain and mild temperatures, as was the third storm, which occurred on the 17th and 18th, with high southerly winds. Other storms were as follows: During the 21st to 23d, attended by rain and snow; 25th and 26th, attended by high southerly winds and high temperature, but very little precipitation; 28th and 29th, with rain and snow, and the 30th to 31st, with snow. There was considerable sleet over the southern part of the district on the 5th, 6th, and 7th, and over the western portions north of the Ohio River on the 3d, 4th, 5th, 6th, 12th, and 13th. Local thunderstorms occurred in sections of eastern Ohio during the 26th.

RIVER CONDITIONS.

At the opening of the month most of the tributaries of the Ohio, especially those emptying from the north and those at the headwaters, were either frozen up or heavily choked with ice. The main stream was frozen over at many points and was either filled with heavy floating ice or else gorged and jammed in nearly all the reaches from Pittsburg to Cairo. Navigation was practically suspended. Rain and unseasonably warm weather during the first several days of the month caused much thawing and softening of the ice, and the general rise in the river from the melting snow broke up and carried out much of the ice during the first decade. Dangerous gorges, however, formed at numerous points, resulting in considerable damage both in the Ohio river and in many of its tributaries. The principal loss was to river craft, steamboats, coal barges, and wharf boats. The large rises in the water stages and the floods, wherever occurring, were due in nearly every case to the forming and breaking up of ice gorges which held back water that would otherwise have run off without producing high stages.

Two of the ice gorges which formed in the Ohio River were of enormous proportions and exceedingly menacing. All the others in comparison with these were of small matter. One of these jams formed at what is known as Grassy Flats, a place about 25 miles above Louisville, the other at Wolf Creek, a narrow point 85 miles below Louisville.

GRASSY FLATS GORGE.

The ice in the rivers and the several gorges above Cincinnati had broken and was running out by the 5th or 6th. The river remained frozen over, however, in a stretch a few miles above Louisville and a large gorge had formed at Six-mile Island. Running ice and gorges from above Madison, Ind., reached that

shore to shore with ice piled up 10 to 15 feet above the water surface and extending back 16 miles. This condition held for over 24 hours, when finally the Six-mile Island jam gave way before the tremendous pressure, which being transferred to the Grassy Flats gorge, its demolition soon followed. The twin gorges broke in the late afternoon of the 8th and all that night and the next day the ice was rushing down the river past Louisville and breaking up in passing over the Falls. Many barges and boats of various kinds and sizes were carried along by the great floe and destroyed. The river rose 4 feet at Louisville within an hour after the breaking of the gorges. Fortunately comparatively little damage was done to property along the river front, and the worst was over a few hours after the break, which came none too soon to escape great disaster. With the passing of the floes from these great jams, navigation was practically opened from Louisville to all points above the Falls.

THE WOLF CREEK GORGE.

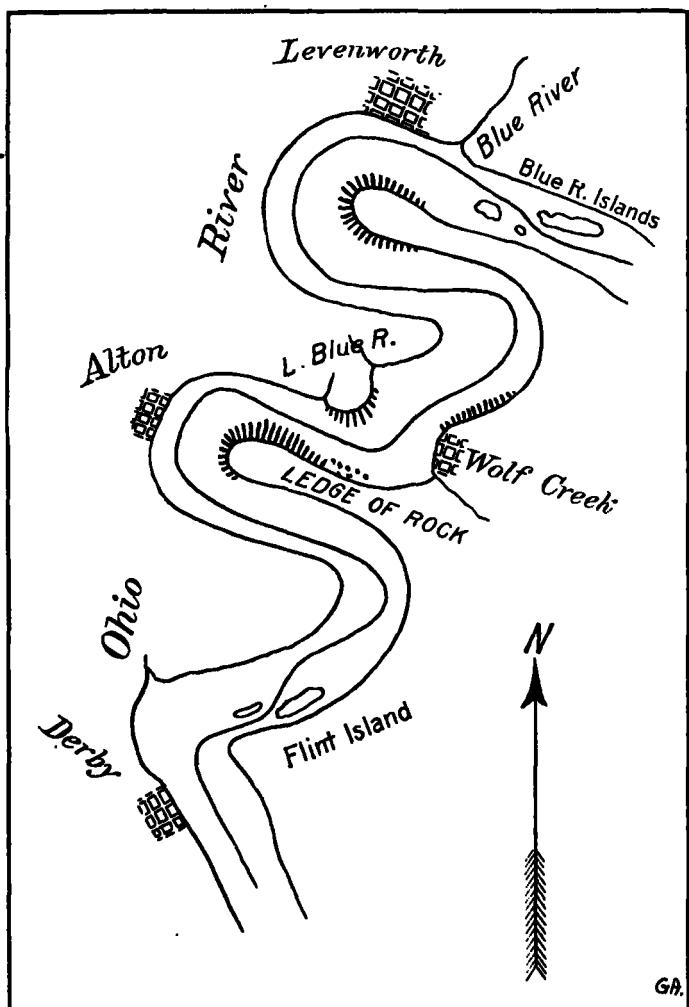


FIG. 1.—Location of the Wolf Creek gorge in the Ohio River, December 21, 1909, to January 18, 1910.

This is considered by river men and old inhabitants the greatest gorge ever known in the Ohio River. It began to form about December 21, when ice which had commenced to move down the river below the Falls stopped in a short bend and narrowing part of the river at a point just below the town of Wolf Creek, Ky. By December 25 it had gorged back to Leavenworth, Ind., a distance of 13 miles, and by the 28th to Brandenburg, Ky., a distance of 31 miles. During the next two weeks, the gorge increased steadily from the great masses of ice coming down from stretches of the river above. By January 14 it extended to the mouth of Salt River, or a distance of 65 miles.

The ice had piled to a height of 50 feet above the water at the head of the gorge, the river was 20 feet higher above the jam than below it, and the water had backed up to Louisville. Up to Thursday, January 13, the gorge was formed straight across the river, but about 9 p. m. that night a large chunk in the shape of a horseshoe dropped out and slid down stream. The next night the entire gorge slipped 100 feet or more farther down stream, where it stuck and wedged tighter. This slight movement allowed the ice in Salt River to run out, causing the greatest and fastest flow of water at the mouth of that river known in years. With the tightening up of the ice dam the water rose rapidly above it, the rise at Louisville during the morning of the 15th being 6.6 feet. The gorge held firmly until 10:10 a. m. the 18th, when it broke of its own accord and went out with little actual loss and damage. The backwater at Louisville had reached a stage of 27.2 feet, or 0.8 below flood stage, when the gorge broke. In one hour after the break it had fallen a foot, and by 7 o'clock the next morning, 7.3 feet. The ice floe passed Evansville, Ind., and Henderson, Ky., the afternoon of the 19th, and Paducah, Ky., the 21st. Water swells of 3 to 5 feet attended the passing of the floe down stream. As about all the heavy ice had run out of the Ohio both above and below the Wolf Creek gorge by the 15th, navigation was resumed over the entire river with the passing of that gorge.

The estimated loss caused by the Wolf Creek and Grassy Flats gorges and the high water and ice in the river between Pittsburg and Owensboro is \$200,000. Not included in this estimate is the loss sustained by the suspension of river traffic for nearly a month, which will probably add another \$150,000. The total number of river craft of all kinds lost and destroyed was about 50 pieces. The tow-boat *Leader*, valued by its owners at \$20,000, and the dredge-boat *Virginia*, of the same value, were the two largest boats wrecked.

Congress appropriated \$10,000 to dynamite the gorge and a large party of experts in that work, in command of Capt. Lytle Brown of the United States Engineers, went to the scene for the purpose on a special train, but the warm weather, rain, and wind, and the enormous water pressure caused the gorge to break before activities began.

The ice gorge at Freeport, Pa., in the Allegheny River, broke the evening of the 19th and a great volume of water poured into the Ohio at Pittsburg, causing a rise of 16 feet, and to the flood stage of 22 feet at that city by the following morning. The river there, however, fell rapidly after the passing of the great wave.

EXTRACTS FROM SUMMARIES OF SECTION DIRECTORS.

Pennsylvania.—Streams in the southern part of the headwaters of the Ohio Basin were moderately high all the month, the highest being about the 19th. Streams in the Allegheny drainage area were low during the third decade.—*George S. Bliss, Section Director.*

West Virginia.—General rain and warm weather during the last part of the second decade caused the rivers to rise to nearly flood stages. No damage was done.—*Henry C. Howe, Section Director.*

Ohio.—Melting snow and rain caused rapid rises in all the rivers of the State during the second decade. Numerous ice gorges formed in practically all the larger streams, which in many instances caused the water to overflow. In every case where a river passed the flood stage the high water was the result of ice obstruction. The ice passed out as a rule, however, without doing any material damage, although menacing at times. Throughout the State there was minor damage by ice and water in small streams. However, apart from the loss to people living in lowlands, whose houses were flooded, the loss due to delayed traffic was greater than any actual property damage.—*Montrose W. Hayes, Section Director.*

Indiana.—Ice in the rivers began to break up after the first decade. During the 13th to 21st critical conditions arose at several points. In the early portion of this period the upper reaches of the rivers were generally clear of ice, but gorges formed at lower points. There was considerable overflowing by reason of the gorges, but they fortunately broke up before much damage was done. These conditions occurred along both the White and the Wabash rivers. The greatest damage occurred about Mount Carmel, Ill., at the confluence of these two rivers. In this vicinity the estimated damage to river craft, to farm lands from erosion or deposit, to crops destroyed or injured, to property in general, and to loss from suspension of business was about \$130,000.—*Verne H. Church, Section Director.*

MONTHLY WEATHER REVIEW.

JANUARY, 1910

TABLE 1.—*Climatological data for January, 1910. District No. 3, Ohio Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Sky.	Prevailing wind direction.	Observers.					
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days .01 inch or more.	Number of partly cloudy days.	Number of cloudy days.		
New York.																			
Allegany.	Cattaraugus.	1,441	4	23.3		47	18†	-13	8	42	5.31		0.90	38.7	21	6	2	23	sw.
Bolivar.	Allegany.	1,800	16	23.4	+ 1.2	46	20	-15	16	50	4.75	+ 1.87	1.30	20.2	16	3	2	26	sw.
Franklinville.	Cattaraugus.	1,598	13	22.2	+ 0.8	45	18†	-12	16	43	5.46	+ 2.26	1.10	26.6	14	2	3	26	s.
Olean.	Cattaraugus.		2								5.70		1.40	25.0	17	6	5	20	nw.
Pennsylvania.																			
Allegheny.	Greene.	1,135	9	30.2		55	20	-1	8†	39	6.85		1.34	24.0	17	4	2	25	sw.
Baldwin.	Butler.	1,404	4	25.6		44	20	-3	8†	30	7.56		1.33	57.0	19	3	2	26	w.
Claysville.	Washington.	1,127	6	30.1		55	20	-3	10†	49	6.94		1.20	24.5	16	8	8	15	w.
Franklin.	Venango.	955	36	25.2†	- 1.0	47†	21	-11†	8	47†	7.41	+ 3.71	1.12	41.5	18	4	2	25	w.
Greenville.	Mercer.	950	14	25.4	- 1.6	44	20	-10	8	36	5.47	+ 1.90	1.33	42.2	18	7	4	20	s.
Indiana.	Indiana.	1,350	13	27.6†	- 1.5	56†	20	0†	7	32†	5.55	+ 2.14	1.00	31.0	13	4	2	19	s.
Johnstown.	Cambria.	1,184	22	29.5	- 0.3	52	20	4	11	39	7.81	+ 3.68	1.32	27.8	13	3	9	19	nw.
Lycippus.	Westmoreland.	1,420	18	30.1	+ 1.0	52	20	6	4	26	8.62	+ 5.11	1.22	33.3	20				Murray Forbes.
Pittsburg.	Allegheny.	842	40	30.8	+ 0.1	51	20	7	4	26	5.33	+ 2.46	1.03	22.3	16	1	9	21	w.
Saegeertown.	Crawford.	1,116	19	25.6	+ 0.8	45	20	-15	8†	47	5.54	+ 2.31	1.60	32.0	20	2	2	27	w.
St. Marys.	Elk.	1,740	12	23.8	+ 0.9	43	18	-2	8	31	3.99	+ 1.17	0.43	34.0	18	7	10	14	w.
Skidmore.	Lawrence.	1,000	6	24.8		44	2†	-10	8	35	7.50		1.80	28.0	12	6	2	23	nw.
Somerset.	Somerset.	2,250	54	26.6	+ 0.6	59†	20	11	33	39	8.91	+ 4.19	1.35	50.4	19	0	11	20	sw.
Uniontown.	Fayette.	999	22	31.6	- 0.6	52	26	9	11	28	7.97	+ 4.40	1.04	20.5	19	3	8	22	sw.
Warren.	Warren.	1,137	21	22.9	- 2.2	48	2†	-9	15	36	4.52	+ 1.61	0.84	28.2	11	7	0	24	nw.
Maryland.																			
Deer Park.	Garrett.		16	26.4	+ 0.3	59†	20	-3	11	40	4.90	+ 1.04	0.63	24.0	14				S. P. Specht.
Grantville.	do.		16	28.2	+ 1.3	53	20	2	11	35	4.90	+ 1.23	0.92	27.0	14	2	9	20	w.
Oakland.	do.		10	29.1	+ 2.7	58	20	-2	11	44	5.35	+ 1.37	0.85	20.3	22	6	5	20	n.
West Virginia.																			
Arbovale.	Pocahontas.		2	33.2															Uriah Hlevener, jr.
Bancroft.	Putnam.																		James Hill.
Beckley.	Raleigh.	2,440	11	34.2	+ 2.3	62	2	6	8	41	4.63	+ 1.30	1.00	11.5	11	9	3	19	w.
Ben's Run.	Pleasants.	622	9	31.6		56	20	1	8†	33	8.33		1.40	25.5	19	14	2	15	J. D. Riggs.
Bluefield.	Mercer.	2,563	15	34.5	+ 1.8	59	3	10	8†	39	3.14	- 0.02	0.90	8.5	8	12	3	16	Norfolk & Western Ry.
Bucknannon.	Upshur.	1,472	20	31.8	+ 0.8	57	3	-2	8	35	6.85	+ 3.12	1.15	16.5	16	8	0	23	H. A. Darnall.
Cairo.	Ritchie.	667	8																Van A. Zevely.
Central Station.	Doddridge.	900	11	29.6	- 2.8	58	20	-5	8	37	6.50	+ 3.18	1.30	18.0	18	3	8	20	w.
Charleston.	Kanawha.	508	24	36.4		65	3	8	8	32	5.35	+ 1.88	1.20	6.0	11	6	5	20	w.
Creston.	Wirt.	612	10	32.4		66	2	8	8	30	6.62	+ 3.48	1.10	9.4	16	6	5	20	w.
Cuba.	Jackson.	544	9	32.0 ^c		59†	20	-4	8	39	6.03	+ 3.19	1.35	8.67	12	4	5	22	nw.
Doane.	Wayne.		5															w.	
Elkhorn.	McDowell.	1,933	18	36.2	+ 0.0	61	6	10	10	41	2.54	- 0.35	0.52	5.8	11	13	0	18	U. S. Weather Bureau.
Elkins.	Randolph.	1,940	11	31.3	+ 2.2	61	20	4	8	36	5.77	+ 2.43	1.15	17.4	18	4	5	22	w.
Fairmont.	Marion.	870	18	31.7		57	17	3	10	36	6.01	+ 4.57	1.26	12.0	12	4	0	27	w.
Glenville.	Gilmer.	738	22	33.6	+ 1.7	59	31	1	8	36	6.96	+ 3.16	1.10	13.0	12	4	0	27	w.
Grafton.	Taylor.	985	18	32.6 ^b	+ 1.0	58†	20	2	8	42	9.02	+ 5.57	1.41	11.0	17	6	9	16	w.
Green Sulphur Springs.	Summers.	1,600	14																John W. Dalton.
Hinton.	do.	1,400	21																V. V. Daly.
Huntingdon.	Cabell.	510	15	33.4	+ 1.6	62	2	5	7†	49	5.14	+ 1.75	1.32	7.5	11	7	5	19	w.
Lewisburg.	Greenbrier.	2,200	10	31.8	- 0.3	58	3†	5	30	35	3.91	+ 0.70	0.93	6.2	10	1	7	23	w.
Logan.	Logan.	665	8	38.4		63	3	12	10	39	5.06		1.25	8.0	11	3	17	11	w.
Lost Creek.	Harrison.	1,033	14	32.6 ^a	- 0.2	59†	20	-1	8†	38	6.32 ^a	+ 2.71	1.04	9.84	14 ^a	8 ^a	1 ^a	21 ^a	w.
Madison.	Boone.	704	5																Allen Smith.
Mannington.	Marion.	967	7	30.7		54	20	-2	8†	36	7.02		1.19	21.3	19	5	4	22	w.
Marlinton.	Pocahontas.	2,169	11	28.7	+ 0.1	52	3	4	8†	34	4.32	+ 1.32	1.50	5.0	7	10	2	19	w.
Morgantown.	Monongalia.	1,250	36	32.2 ^c	+ 0.6	53†	20†	8†	4	35 ^c	0.70 ^c	+ 2.01	1.42 ^c	14.0 ^c	15 ^c	10 ^c	8 ^c	12 ^c	s.
Moundsville.	Marshall.	640	8	31.2		60	20	-4	8	40	5.60		1.01	9.0	15	8	2	21	sw.
New Cumberland.	Hancock.	987	10	28.5	+ 1.0	50	20	5	11	35	5.38	+ 3.37	1.85	15.5	11	4	2	25	s.
New Martinsville.	Wetzel.	634	17	32.2	- 0.1	58	20	-4	8	37	5.98	+ 2.80	1.18	15.4	13	8	2	21	sw.
Nuttallburg.	Fayette.	2,252	18	27.6	- 3.6	55	2	5	10	30	2.52	- 0.58	0.47	18.2	10	7	8	16	w.
Parkersburg.	Wood.	638	22	32.0	+ 0.6	56	20	1	10	31	6.53	+ 3.34	1.43	18.0	16	3	5	23	s.
Parsons.	Tucker.	1,662	11	31.0	- 0.2	65	20	-1	8	45	4.01	+ 4.05	1.25	28.0	14 ^b	8 ^b	5 ^b	18 ^b	w.
Philipps.	Barbour.	1,192	18	32.3	+ 0.9	57	20	-1	8	38	7.02	+ 3.24	1.05	17.8	23	5	8	18	w.
Pickens.	Randolph.	2,785	20	31.2 ^b	+ 0.4	64†	20	1 ^b	8	42 ^b	10.10 ^b	+ 4.49	1.20	43.0 ^b	20 ^b	8 ^b	2 ^b	22 ^b	w.
Pineville.	Wyoming.		2																E. M. Senter.
Point Pleasant.	Mason.	553	21	32.6	- 0.7	55	2	0	10	35	5.24	+ 1.81	1.30	5.0	11	0	1	30	sw.
Powellton.	Fayette.	904	14																H. Scott.
Princeton.	Mercer.	2,460	10	30.4		56	3	6	36	37	4.78	- 0.46	1.10	16.5	16	8	5	24	w.
Robertsburg.	Putnam.	1	3	32.6		61	2	3	10	38	5.79		1.37	8.0	12	4	3	24	w.
Ryan.	Roane.	630	7	32.4		60	2†	-3	8	40	6.29		1.27	20.5	16	5	3	23	w.
Smithfield.	Wetzel.	6	29.9			52	26	11	38	51	5.31		0.70	15.0	15	10	13	8	nc.
Spencer.	Roane.	710	7	31.2		59	3†	-3	8	41	6.83		1.00	19.3	13	0	9	22	w.
Terra Alta.	Braxton.	5	32.6			62	31	3	7	42	6.58		1.00	14.0	10	11	4	16	w.
Union.	Preston.	3,207	10	27.2	- 0.3	48	31	2	8	30	9.19	+ 4.38	1.36	35.9	13	6	5	20	w.
Valley Fork.	Monroe.	7	30.6			64	6	8	40	2.71			0.67	7.5	6	2	19	10	w.
Webster Springs.	Clay.	7	32.4			61	20	10	10†	49	3.90		2.00	12.0	6	2	7	21	nw.
Wellsburg.	Brooke.																		

TABLE 1.—Climatological data for January, 1910. District No. 8—Continued.

Stations.	Counties	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days, 01. inch or more.	Number of clear days.	Number of part. cloudy days.	Number of full cloudy days.	Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unsealed.							
Ohio—Cont'd.																					
Frankfort.	Ross.	750	18	31.6	+ 1.2	54	2†	-14	10	44	4.20	+ 1.38	1.10	13.0	12	10	0	21	w.	O. A. Cory.	
Garretttsville.	Portage.	1,005	26	25.4	+ 0.3	44	18†	-11	10	37	4.56	+ 1.50	0.98	30.5	19	2	5	24	sw.	S. M. Luther.	
Granville.	Licking.	960	28	26.8	- 0.4	47	26†	-8*	10	39	5.58	+ 2.56	1.20	24.5	10	4	4	23	sw.	Dr. L. E. Davis.	
Gratiot ¹ .	do.	1,000	21	27.2	- 1.5	46	26†	-14	10	40	6.64	+ 3.81	1.30	30.0	15	4	6	21	sw.	W. B. Longstreth.	
Green.	Adams.	500	17	33.0	- 0.5	60	1	-12	8	39	5.91	+ 2.40	1.45	10.5	10	6	7	18	nw.	W. F. Kenyon.	
Green Hill.	Columbiana.	1,135	18	25.2	- 0.9	47	20	-13	10	38	4.75	+ 2.27	0.71	24.0	14	4	4	10	17	nw.	Jos. E. Bentley.
Greenville.	Darke.	1,060	24	27.8	+ 0.4	52	26	- 3	7	25	3.44	+ 0.52	0.95	8.5	10	5	8	18	sw.	G. A. Katzenberger.	
Hillsboro.	Highland.	1,063	31	28.6	- 1.4	56	26	- 5	10	28	5.49	+ 2.42	1.48	16.5	14	10	7	14	sw.	Carey H. Roush.	
Ironon.	Lawrence.	575	27	33.6	+ 0.8	59	2	- 6	8†	43	5.06	+ 1.31	1.40	10	6	3	20	sw.	James Bull.		
Jacksonburg.	Butler.	975	42	30.6	+ 2.9	56	26	0	10	30	3.89	+ 0.04	10.0	0	6	3	21	sw.	Dr. J. B. Owsley.		
Kenton.	Hardin.	1,015	18	26.5	- 0.9	49	26	- 4	10	25	4.51	+ 1.50	1.31	11.0	15	4	6	21	s.	N. S. Martin.	
Killbuck.	Holmes.	1,087	18	26.2	- 1.9	45	2†	- 5	8	33	5.18	+ 2.74	1.20	27.5	14	3	9	19	nw.	Geo. W. Nowels.	
Lancaster.	Fairfield.	898	15	29.8	- 0.4	53	18	-11	10	37	5.98	+ 3.08	1.60	19.5	3	3	19	sw.	R. L. Renshaw.		
Lawses.	Adams.	900	7	30.8	- 1.2	58	26†	-21	10	49	5.27	+ 1.70	16.5	13	8	6	17	w.	Miss Ruth Hoffman.		
McConnellsville.	Morgan.	710	26	29.0	- 1.2	55	20	-12	8	43	7.00	+ 3.65	1.62	20.5	7	4	8	19	s.	C. H. Morris.	
Marietta.	Washington.	627	90	33.4	+ 1.8	54	27	- 4	10	36	6.00	+ 2.79	1.31	11.0	13	5	6	20	s.	Prof. T. D. Biscoe.	
Marion.	Marion.	980	32	28.1	+ 1.2	49	27	- 2	10	30	4.97	+ 2.32	1.70	17.9	13	3	6	22	w.	Dr. E. H. Raffensperger.	
Milfordton.	Knox.	1,200	18	26.2	+ 1.0	46	28†	- 5	8	31	4.27	+ 1.42	1.00	23.0	12	9	9	6	sw.	L. H. Burgess.	
Milligan.	Perry.	875	17	27.8	- 2.0	51	20	-24	10	52	5.26	+ 2.82	1.50	18.0	14	2	10	19	sw.	V. C. Eveland.	
Millport.	Columbiana.	1,145	18	25.5	- 1.9	44	18†	-14	11	41	4.88	+ 2.25	0.88	28.8	8	3	20	w.	G. F. Copeland.		
Nellie.	Coshcocton.	850	10	24.8	- 3.6	45	26	-20	10	47	3.61	+ 1.10	1.10	20.0	13	11	2	18	w.	Miss Ethel L. Gamertsfelder.	
New Alexandria.	Jefferson.	1,050	25	27.4	- 1.3	48	19	- 4	11	35	6.55	+ 3.13	1.65	36.0	7	8	5	18	w.	Mrs. Mary K. Pennell.	
New Berlin.	Stark.	1,100	18	26.2	- 0.5	45	26	- 2	10	33	4.82	+ 2.53	0.97	22.5	17	4	4	23	w.	Clayton Holl.	
New Waterford.	Columbiana.	1,053	16	24.4	- 2.8	45	18†	-12	8	35	5.80	+ 2.66	1.35	45.0	17	10	5	16	sw.	Sam. C. Scott.	
Ohio State University.	Franklin.	975	27	28.0	+ 0.5	52	26	-11	10	36	4.60	+ 1.66	1.29	17.2	14	1	8	22	nw.	Prof. H. C. Lord.	
Pataksala.	Licking.	997	18	26.6	- 1.0	48	26	-12	8	38	5.71	+ 2.70	1.25	27.3	18	3	10	18	sw.	J. N. Ridenour.	
Philo(1).	Muskingum.	1,018	15	28.6	- 1.2	56	26	0	8	28	4.61	+ 2.29	1.02	20.2	12	6	7	18	nw.	L. C. Burkholter.	
Plattsburg.	Clarke.	1,130	17	27.0	- 0.7	52	26	- 7	10	30	3.98	+ 1.02	1.00	14.0	11	6	4	21	sw.	F. E. Stewart.	
Pomeroy.	Meigs.	751	26	32.2	0.0	58	26	- 1	7	34	5.44	+ 2.61	1.59	19.0	13	6	7	18	w.	W. G. Branch.	
Portsmouth.	Scioto.	527	79	32.4	- 2.3	58	26	- 4	10	30	6.46	+ 3.04	1.75	12.0	16	3	3	25	w.	Dr. H. A. Schirrmann.	
Rittman.	Wayne.	990	18	24.8	- 1.3	47	26	- 2	10	30	3.28	+ 0.81	0.81	17.6	14	10	21	sw.	J. B. Gish.		
Shenandoah.	Richland.	1,100	18	24.8	- 1.3	47	26	- 2	10	30	3.28	+ 0.81	0.81	17.6	14	8	2	23	sw.	T. B. Arnett.	
Sidney.	Shelby.	985	27	28.1	+ 1.5	46	18	- 4	10	28	3.30	+ 0.53	1.09	10.9	15	6	2	23	sw.	Hamline B. Blake.	
Somerset.	Perry.	1,080	11	27.1	- 3.1	48	20†	- 2	10	35	4.43	+ 1.63	1.15	28.0	11	8	2	20	sw.	Miss M. W. C. Sheridan.	
Springfield.	Clarke.	1,002	16	29.0	- 1.0	50	27	-17	10	42	6.59	+ 1.35	20.8	15	12	17	sw.	W. A. Webster.			
Summerfield.	Noble.	1,187	4	29.0	- 1.0	50	27	-17	10	42	6.59	+ 1.35	20.8	15	12	17	sw.	H. R. McClinton.			
Thurman.	Gallia.	806	17	32.3	- 0.4	58	26	- 9	10	36	4.32	+ 1.51	0.80	13.0	10	3	7	21	w.	D. D. Thomas.	
Urbana.	Champaign.	1,031	40	27.9	+ 0.6	53	26	-10	10	36	2.05	+ 0.30	0.56	20.7	15	4	9	18	sw.	Prof. J. H. Williams.	
Warren.	Trumbull.	900	21	26.6	- 0.1	44	18†	- 3	8†	30	4.82	+ 1.99	0.82	32.5	12	6	8	17	w.	M. D. McCorkle.	
Waverly.	Pike.	590	27	30.8	+ 0.1	58	26	-15	10	47	6.65	+ 3.26	1.91	21.4	14	7	2	22	w.	David Lorbach.	
Waynesville.	Warren.	700	25	28.6	- 0.5	57†	26	- 5	10	29†	3.20†	- 0.14	6.00	6.5†	11†	8	5	18	w.	Charles Michener.	
Wooster.	Wayne.	1,030	30	26.7	+ 0.2	45	26†	- 1	8†	28	5.29	+ 2.13	0.81	24.5	16	11	0	20	sw.	Experiment Station.	
Youngstown.	Mahoning.	846	18	31.2	- 1.0	62	2	11	22	26	4.87	- 1.57	2.28	7.6	7	14	8	9	10	w.	G. R. Patton.
Zanesville.	Muskingum.	700	23	32.4	- 1.2	58	6	9	10	34	2.82	- 0.55	6.5	8	11	4	16	s.	S. G. Sprague.		
Virginia.											4.85	+ 2.03	1.20	21.2	13	8	0	23			
Big Stone Gap.	Wise.	1,540	19	35.4	+ 1.8	58	6	7	23	32	4.35	+ 0.49	1.25	7.5	9	6	3	22	w.	John W. Fox, sr.	
Blacksburg.	Montgomery.	2,170	19	31.2	- 1.1	63	3	7	11†	41	3.33	+ 0.45	0.92	7.0	8	9	5	17	w.	Agricultural Exp. Station.	
Burkes Garden.	Tazewell.	3,250	15	31.1	+ 0.3	56	6	4	8	33	3.19	- 0.01	0.85	7.0	7	9	1	21	w.	C. H. Grever.	
Elk Knob.	Galax.	3,243	7	34.4	- 4.4	53	3†	10	7†	35	4.90	+ 1.29	6.0	15	20	5	6	s.	Henry Nicoll.		
Galax.	Ivanhoe ² .	2,300	2	33.8	- 3.8	65	2	6	30	40	3.57	+ 1.10	11.0	7	9	13	6	n.	E. C. Williams.		
Ivanhoe ² .	Wythe.	2,028	6	33.6	- 3.8	58	2†	11	11	33	3.06	+ 1.00	0.92	10.0	10	8	10	13	w.	Miss Alice G. Jewett.	
Lebanon.	Russell.	2,131	35.0	35.0	- 0.1	60	5†	8	8	39	4.57	+ 1.12	14.0	11	10	3	18	sw.	R. D. Swain.		
Marion.	Smyth.	2,224	15	34.4	+ 0.1	68	3	4	23	38	3.84	+ 0.49	1.13	13.0	8	9	10	12	w.	S. W'n State Hospital.	
Max Meadows.	Wythe.	2,028	14	33.2	- 1.2	58	6	9	10	34	2.82	- 0.55	6.5	8	11	4	16	w.	James M. Graham.		
Mendota.	Washington.	1,350	4	36.4	- 1.0	58	3	7	22	38	5.87	- 0.48	3.15	8.0	8	16	8	7	nw.	Frank M. Baker.	
Radford.	Montgomery.	1,773	4	35.2	- 1.4	60	2	13	10	37	3.76	- 2.25	1.42	7.0	10	8	13	w.	Arthur Roberts.		
Spears Ferry.	Scott.	1,221	14	34.0	+ 0.2	60	6	13	8	33	2.72	- 0.06	0.97	4.6	9	9	4	18	w.	Mrs. L. E. Venable.	
Wytheville.	Wythe.	2,293	17	34.0	+ 0.2	68*	3	15*	11	36*	3.68	- 1.72	1.30	2.5	10	10	5	16	w.	U. S. Weather Bureau.	
Andrews.	Cherokee.	1,800	39.2	66	3	13	8	37	3.95	4.67	- 1.67	3.1	11	8	10	13	13	nw.	J. D. Link.		
Asheville.	Buncombe.	2,250	31	36.4	+ 1.0	67	2	11	8	34	4.42	- 2.25	0.25	5.6	13	7	7	11	nw.	U. S. Weather Bureau.	
Banners Elk.	Transylvania.	3,750	2	31.7	55	2†	4	8	34	4.80	1.35	14.0	10	10	3	18	w.	T. L. Lowe.			
Brevard.	Swain.	2,230	9	35.9	67	2	10	8	35	2.42	1.08	3.0	5.13	13	5	13	5	n.	W. E. Breeze.		
Bryson City.	Jackson.	2,000	22	38.0	- 1.0	69	3	10	8†	44	2.54	- 1.48	0.3	7	11	4	16	n.	D. K. Collins.		
Cullowhee.	Henderson.	2,167	14	34.0	+ 0.1	58	3	7	22	38	5.87	- 0.48	3.15	8.0	8	16	8	7	nw.	F. H. Brown.	
Highlands.	Madison.	3,670	20	33.4	+ 0.1	58	3	7	22	38	4.80	- 0.48	3.15	8.0	8	16	8	7	nw.	T. W. Valentine.	
Hot Springs.	Madison.	1,328	12	39.6	- 1.4	60	2	9	8	42	2.73	- 1.03	4.7	7	6	3	22	w.	T. G. Garrison.		
Jefferson.	Jefferson.	2,800	3	35.2	- 0.7	60	2	9	23	34	1.98	- 0.60	12.0	6	10	10	13	w.	E. J. Johnson.		
Marshall.	Madison.	1,646	9	38.2	- 0.7	70	2	9	13	41	4.36	- 1.33	0.98	7.0	9	10	13	w.	W. E. Finley.		
Murphy.	Cherokee.	1,614	34	31.2	- 1.0	62	2	11	22	26	4.87	- 1.57	2.28	7.6	7	14	8	9	nw.	Miss J. Campbell.	
Rock House.	Macon.	3,100	18	36																	

MONTHLY WEATHER REVIEW.

JANUARY, 1910

TABLE 1.—Climatological data for January, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unshoveled.							
Tennessee—Cont'd.																					
Elizabethhton.	Carter.	1,575	20	34.8		61	24	4	8	40	5.01	+ 0.10	1.62	6.4	12	9	7	15	se.	Lee F. Miller.	
Erasmus.	Cumberland.	1,850	13	34.8	+ 0.9	65	26	6	7	33	4.57	+ 0.16	1.60	1.0	9	13	4	14	s.	Mrs. E. D. Ashley.	
Florence.	Rutherford.	560	28	38.8	+ 0.2	66	26	5	7	28	4.21	+ 0.16	1.40	2.5	7	13	6	18	.....	Erasmus P. Bell.
Franklin.	Williamson.	655	20	38.0	+ 0.2	64	3	13	7	30	4.77	+ 0.67	2.1	8	11	6	14	.....	J. L. Parkes, jr.	
Harriman.	Roane.	841	15	37.0	+ 0.6	68	26	- 5	7	38	3.73	- 1.22	1.55	3.0	7	10	10	11	s.	Robert R. Ayers.	
Hohenwald.	Lewis.	983	24	39.4	+ 1.7	68	26	- 5	7	36	5.14	+ 0.12	2.24	T.	5	7	15	9	nw.	John Lutzelman.	
Iron City.	Lawrence.	13	39.9	+ 0.5	68	26	7	7	36	4.12	+ 0.56	0.77	10.0	9	5	18	8	.....	Capt. H. P. Seavy.	
Johnsonville.	Humphreys.	364	14	38.5	- 0.2	68	26	- 10	7	45	4.89	+ 0.48	1.56	6.0	8	11	5	15	s.	Miss Sallie B. Matthews.	
Jonesboro.	Washington.	1,740	15																	Robert A. Lovegrove.
Knoxville.	Knox.	977	39	38.2	+ 0.7	64	3	15	7	26	3.66	- 1.31	1.58	2.0	10	8	6	17	sw.	U. S. Weather Bureau.	
Lebanon.	Wilson.	522	1	39.8 ^c		67	26	9	8	31			4.2		9	4	4	18	s.	Logan Fields.	
Lewisburg.	Marshall.	727	15	39.4	- 0.6	67	26	7	8	37	4.95	+ 0.32	2.87	1.1	10	13	5	13	nw.	Dr. R. D. Crutcher.	
Lynville.	Giles.	770	22	38.4	0.0	65	24	8	7	32	2.40	- 2.39	0.81	2.0	7	12	9	10	n.	Col. J. H. Burrow.	
McMinnville.	Warren.	1,011	26	38.2	- 0.4	63	26	7	7	34	3.84	- 1.04	1.60	3.2	14	6	11	14	s.	J. T. Sparkman.	
Maryville.	Blount.	1,050	14	40.4	+ 2.5	69	3	13	8	30	3.32	- 1.23	1.00	3.7	10	9	8	14	w.	Mrs. F. E. Benedict.	
Mountain City.	Johnson.	2,486	13	34.9	+ 1.7	63	5	1	23	48	4.12	+ 0.56	0.77	10.0	9	5	18	8	.....	E. E. Barry.
Nashville.	Davidson.	654	30	39.4	+ 1.4	66	26	7	7	31	3.45	- 1.40	1.84	1.7	9	11	5	15	w.	U. S. Weather Bureau.	
Newport.	Cooke.	1,280	20	30.5 ^b	- 1.3	70	3	12	23	28	3.00	- 0.42	0.85	4.0	5	13	6	12	w.	Dr. C. T. Burnett.	
Palmetto.	Bedford.	770	17	39.8	+ 1.2	66	26	4	7	35	4.17	- 0.78	1.75	T.	12	8	12	12	n.	Mrs. Rose Woods.	
Pinewood.	Hickman.	5	37.5 ^b			70	26	- 9	7	44	4.47		1.80	8.3	10	15	4	12	n.	Miss Carrie Cash.	
Pope.	Perry.	13	34.6 ^d			63	1	2	7	33	3.20	- 1.51	2.20	2.0	6	17	5	9	n.	Miss Bessie Howard.	
Rogersville.	Hawkins.	1,180	25	36.2	+ 0.4	63	3	12	10 ^b	34	3.13	- 0.62	0.86	T.	11	9	1	20	w.	Fred. Seal.	
Rugby.	Morgan.	1,410	22	34.8	- 0.2	73	2	1	8	45	6.63	+ 1.72	2.70	9.0	9	7	11	13	se.	S. G. Wilson.	
Savannah.	Hardin.	442	26	41.8 ^b	+ 2.0	66	21	8	7	44	4.42	- 0.18	2.20	1.5	5	18	0	13	nw.	J. A. Spencer.	
Sevierville.	Sevier.	4	38.0			69	3	10	8 ^b	35	3.42		0.90	7.7	9	2	8	21	sw.	H. O. Eckel.	
Sewanee.	Franklin.	2,000	14	37.5	+ 0.2	59	10	5	7	33	3.13	- 1.19	1.50	4.5	6	8	20	n.	University of the South.		
Sparta.	White.	920	4	30.2		62	31	9	8	33	2.17		1.45	1.0	7	11	10	10	w.	E. H. Hull.	
Springdale.	Claiborne.	1,058	20	34.1	- 2.0	56	24	8	23	33	5.22	+ 1.30	1.50	2.5	9	4	7	20	w.	Mrs. Lucy E. Breeding.	
Springville.	Henry.	377	7	37.2		68	26	- 17	7	47	5.47		3.16	14.0	11	12	5	14	n.	H. A. Boden.	
Tullahoma.	Coffee.	1,075	22	39.0	+ 0.9	67	1	6	7	32	4.27	- 0.98	2.02	3.2	9	11	6	14	n.	R. T. Moore.	
Waynesboro.	Wayne.	753	24	40.0	+ 1.3	68	26	5	7	35	4.76	+ 0.27	1.50	0.7	9	15	7	9	n.	H. C. Boyd.	
Wildersville.	Henderson.	13	39.9 ^d	+ 0.9		67	26	- 4	7	35	5.11	- 0.18	2.40	4.0	5	13	3	15	n.	W. R. Wilson.	
Yukon.	Lincoln.	850	13	38.8	- 1.2	63	3	7	7	28	4.41	- 0.28	2.25		8	11	5	15	nw.	W. P. Watson.	
Kentucky.																					
Alpha.	Clinton.	16	39.2	- 0.7	62	2	8	8	32	5.80	+ 1.34	2.75	4.0	5	10	1	20	w.	W. W. Hicks.		
Anchorage.	Jefferson.	700	9	30.7	- 2.8	63	26	- 10	7	42	4.03	+ 0.69	1.10	13.0	9	8	9	14	sw.	C. E. Barrett.	
Bardstown.	Nelson.	637	14	34.3	- 0.6	65	26	- 7	10	40	3.98	- 0.18	1.05	11.0	10	6	1	24	sw.	G. M. Talbott.	
Beattyville.		650	7	32.2		63	2	0	8	55	5.98		2.12	15.0	11	7	3	21	w.	G. W. Cann.	
Beaver Dam.	Ohio.	441	7	31.5		67	26	- 20	7	63	4.85		2.11	17.0	7	10	1	20	nw.	T. S. Woodward.	
Berea.	Madison.	1,070	9	34.8		62	2	- 3	10	33	3.22		0.94	11.5	11	10	1	19	sw.	C. F. Rumold.	
Bowling Green.	Warren.	500	21	36.5	0.0	68	26	3	8 ^b	36	2.51		1.20	13.5	9	11	1	19	n.	Mrs. L. G. Causey.	
Burnside.	Pulaski.	773	20								5.50	+ 1.75	2.50	2.8	10	10	5	16	se.	G. M. Estes.	
Cadiz.	Trigg.	8	37.2			67	26	- 12	7	40 ^b	3.81		1.47		7	12 ^b	4 ^b	7	.....	F. T. Street.
Calhoun.	McLean.	397	7	35.1		65	26	- 6	10	41	4.76		1.34	12.5	9	7	9	15	nw.	W. A. Taylor.	
Catlettsburg.	Boyd.	544	17								5.00	+ 1.10	1.24	6.0	15	10	3	18	sw.	Chas. N. Bruns.	
Earlington.	Hopkins.	370	21	33.7	- 1.6	67	26	- 8	7	46	4.68	+ 0.73	1.70	15.5	10	10	1	20	nw.	J. B. Atkinson.	
Edmonton.	Metcalf.	800	19	35.0	- 0.7	64	26	0	8	34	3.47	- 0.64	1.10	6.5	11	9	3	19	w.	Miss Lee Ray.	
Eubank.	Pulaski.	1,177	16	33.1	- 1.3	60	1 ^b	2	8	45	4.59	+ 0.75	0.96	7.3	12	7	3	21	sw.	W. H. Henderson.	
Falmouth.	Pendleton.	530	21								4.15	+ 0.88	0.97	15.0	16	8	2	21	w.	J. V. Oldham.	
Farmers.	Rowan.	668	5	33.2		61	2	- 13	10	50	5.76		1.86	11.0	11	15	5	21	w.	Miss Gertrude Sorrell.	
Frankfort.	Franklin.	503	20	33.2	- 2.2	62	26	3	8	35	3.73	+ 0.39	0.91	10.2	12	8	10	13	w.	Gustave Schaefer.	
Franklin.	Simpson.	691	17	36.2	- 1.4	67	26	- 4	7	36	4.12	+ 0.38	0.99	8.5	9	6	13	12	s.	J. E. Newman.	
Greensburg.	Green.	581	18	32.2	- 2.3	65	26	- 8	9	55	5.38	+ 1.35	1.40	9.0	10	12	0	19	n.	L. C. Aleorn.	
Hightbridge.	Jessamine.	762	8								4.55		1.30	9.1	13	8	5	18	.....	Miss Lulu Wood.
Hopkinsville.	Christian.	524	14	35.6	- 1.3	70	24	- 12	7	34	4.62	- 0.30	1.44	2.00	14.2	8	12	0	19	s.	W. F. Randle.
Irvington.	Breckinridge.	12	34.2	- 1.4		64	26	- 4	7	37	4.17	+ 0.32	1.44	14.0	9	11	2	18	w.	W. J. Piggott.	
Leitchfield.	Grayson.	635	15	33.9	- 0.9	66	26	- 5	7	36	4.56	+ 0.25	1.50	11.2	10	6	15	18	s.	John E. Stone.	
Lexington.	Fayette.	980	23	32.0	- 1.0	60	26	4	7	34	4.46	- 0.63	1.20	12.8	15	5	8	18	s.	U. S. Weather Bureau.	
Loretto.	Marion.	681	13	34.4 ^a	- 2.2	65	26	- 13	10	45 ^b	3.40	- 0.39	1.24	7.8	7	5	3	13	.....	Loretto Academy.
Louisville.	Jefferson.	525	38	34.0	- 0.5	64	26	4	7	30	3.25	- 0.65	0.91	10.3	14	7	7	17	s.	U. S. Weather Bureau.	
Marietta.	Crittenden.	16	35.8	- 0.4		62	26	- 1	7	24	3.67	- 0.30	1.99	10.0	4	10	6	15	nw.	B. C. Paris.	
Maysville.	Mason.	524	14	30.8	- 1.8	61	26	- 8	11	52	5.78	+ 2.50	1.50	15.6	15	12	6	13	nw.	Mrs. Mary D. Marsh.	
Middleboro.	Bell.	1,128	17	38.0	+ 3.2	63	3	9	23	33	4.98	+ 1.12	2.35		9	22	2	7	.....	R. H. Perkins.
Montgomery.	Daviess.	930	21	32.2	- 1.6	59	2	- 9	10	37	5.83	+ 1.45	1.20	16.5	11	5	9	17	se.	James O'Connell.	
Owensboro.	Owen.	479	14	32.6	- 2.8	64	26	- 1	11	41	2.29	- 1.50	0.80	11.0	9	9</					

TABLE I.—Climatological data for January, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of partly cloudy days.	Number of cloudy days.		
<i>Indiana—Cont'd.</i>																			
Kokomo.	Howard.	840	18	27.4	+ 0.3	51	26	0	7	22	2.97	+ 0.35	0.97	2.0	7	7	9	15	w.
Lafayette.	Tiptpecanoe.	617	31	26.5	+ 1.1	53	26	0	7	31	2.33	- 0.14	0.88	2.3	9	7	2	22	s.
Logansport.	Cass.	620	36																Chas. Massena.
Madison.	Jefferson.	460	18	32.1	- 1.0	62	26	- 5	7	29	3.65	- 0.14	1.39	15.2	13	11	5	15	Dr. J. Cooperider.
Marengo.	Crawford.	363	28	29.6	- 3.3	61	26	- 18	7	43	3.85	- 0.83	0.90	12.0	9	11	3	17	J. M. Johnson.
Marion.	Grant.	814	24	27.8	+ 0.7	53	26	0	7	24	3.05	+ 1.40	1.09	5.1	11	5	8	18	James F. Hood.
Markle.	Huntington.	814	15	26.2	- 1.4	52	25	1	10	25	1.85	- 0.76	0.75	0.5	4	10	8	13	I. S. Shideler.
Mauzy.	Rush.	980	30	28.0	+ 1.7	58	26	- 9	7	33	3.41	+ 0.16	0.98	9.2	14	4	8	19	Elwood Kirkwood.
Moores Hill.	Dearborn.	9	29.8			57	26	- 5	7	29	3.36		1.54	11.0	15	8	2	21	W. S. Bigney.
Mount Vernon.	Posey.	410	24																Chas. M. Spencer.
Paoli.	Orange.	611	13	30.0	- 2.6	56	18	- 23	7	47	2.96	- 0.33	1.08	11.5	10	7	8	16	James A. Gillum.
Princeton.	Gibson.	481	28	31.2	+ 0.2	61	26	- 10	7	30	1.84	- 1.49	0.95	4.0	3	15	2	14	Elisha Jones.
Richmond.	Wayne.	972	25	27.8	+ 0.6	55	26	- 11	7	34	3.04	+ 0.23	1.01	7.1	15	5	6	20	Walter Vossler.
Rochester.	Fulton.	775	7	27.3		48	26	- 1	10	26	2.67		1.06	4.2	8	10	5	16	G. P. Keith.
Rockville.	Parke.	722	24	28.8	+ 0.6	53	26	- 2	7	22	1.95	- 0.51	0.72	2.0	8	7	2	22	Dr. W. N. Wirt.
Rome.	Perry.	370	7	34.2		64	26	- 9	7	43	3.37		1.43	11.5	10	14	1	16	Adam Ansbach.
Salamonie.	Jay.	5	26.8			53	26	- 5	7	28	3.44		1.12	5.5	12	4	1	25	Chas. V. Skinner.
Salem.	Washington.	717	17	30.0	- 2.0	63	26	- 21	7	41	4.00	+ 0.37	1.36	13.0	11	6	9	16	Emmet S. Allen.
Scottsburg.	Scott.	570	16	32.2	- 1.1	61	26	- 9	10	39	3.33	- 0.21	1.12	11.5	11	8	6	17	Frank H. Park.
Seymour.	Jackson.	610	23	30.8	- 0.8	60	26	- 10	10	39	3.09	- 0.48	0.99	10.4	12	6	10	15	J. Robt. Blair.
Shelbyville.	Shelby.	6	28.2			57	26	- 12	7	31	3.78		1.15	10.0	13	5	11	15	B. F. Crouch.
Terre Haute.	Vigo.	498	20	30.9	+ 1.1	55	26	- 4	7	22	2.58	- 0.07	0.84	7.5	10	6	6	15	Prof. R. G. Gillum.
Veedersburg.	Fountain.	612	11	29.0	+ 1.2	54	26	- 1	7	25	2.41	+ 0.03	0.73	3.5	8	12	9	10	L. A. Culver, jr.
Vevay.	Switzerland.	525	29	32.3	- 0.1	62	26	- 3	10	36	3.85	- 0.13	1.75	15.0	9	8	3	20	Miss Frederica Boerner.
Vincennes.	Knox.	431	18	30.0	- 1.0	59	26	- 7	7	36	3.50	+ 0.28	1.10	8.5	9	9	1	21	Garrett V. List.
Washington.	Davies.	484	14	30.2	- 1.2	60	26	- 2	8	35	2.88	- 0.73	0.70	9.7	11	10	0	21	Homer B. Turrell.
Whitestown.	Roone.	1	27.4			50	18	0	7	22	2.59		1.04	2.6	8	4	9	18	C. A. Stevenson.
Winona Lake.	Kosciusko.	3	25.9			49	26	- 5	7	31	2.09		0.91	5.3	10	6	6	19	Rev. Albert A. Young.
Worthington.	Greene.	526	28	29.4	+ 0.4	60	27	- 6	7	31	3.08	+ 0.07	0.71	7.5	10	9	7	15	D. W. Soliday.
<i>Illinois.</i>																			
Albion.	Edwards.	531	19	31.4	- 0.7	58	26	0	10	30	2.55	- 0.50	0.88	7.0	9	12	5	14	n.e.
Charleston.	Coles.	720	25	29.3	+ 1.0	50	26	3	6†	30	2.01	- 0.17	0.99	2.5	11	8	6	17	Jacob B. Daisy.
Equality.	Gallatin.	421	12	35.5	- 0.0	62	17†	2	7	39	2.37	- 1.67	0.67	6.5	8	15	2	14	Dr. L. W. Gordon.
Fairfield.	Wayne.	495	17	32.3	- 1.1	58	26	3	10	30	2.40	- 0.48	0.86	4.5	7	15	0	16	Geo. A. Tromly.
Flora.	Clay.	495	24															Jos. S. Peak.	
Golconda.	Pope.	500	32	33.4	- 0.6	64	26	- 14	7	41	3.08	- 0.67	1.08	8.0	7	13	2	16	Dr. D. Lawrence.
Hoopston.	Vermilion.	715	8	26.9		50	26	- 3	7	28	2.99		0.97	2.7	12	11	6	14	S. F. Hoskinson.
McLeansboro.	Hamilton.	482	27	29.5	- 2.2	57	18	- 12	7	36	3.09	- 0.08	0.76	8.5	8	7	8	16	C. C. Judd.
Martinsville.	Clark.	630	22	30.4	+ 1.1	53	18†	4	7	28	1.33	- 1.13	0.50	2.5	6	11	5	18	G. M. Daugherty.
Mount Carmel.	Wabash.	424	9	30.2		61	26	- 4	7	37	3.44		0.80	13.8	9	9	1	21	Mrs. H. M. Phillips.
New Burnside.	Johnson.	536	15	35.0	- 0.1	60	26	8	7	28	3.06	- 0.48	1.20	8.0	4	15	4	12	Geo. Harris.
Olney.	Richland.	486	23	32.3	+ 0.3	58	26	- 6	7	25	2.97	+ 0.68	0.72	3.5	10	9	7	15	Victor E. Phillips.
Palestine.	Crawford.	500	28	30.8	+ 1.9	57	26	- 4	7	24	2.71	- 0.25	0.87	3.0	7	6	4	21	Duane Shaw.
Paris.	Edgar.	600	17	27.6	- 1.0	54	26	3	7	30	2.80	+ 0.25	0.90	2.5	6	5	16	H. P. Twymann.	
Philo.	Champaign.	700	26	27.1	+ 1.1	49	26	0	6†	28	2.26	- 0.08	0.55	1.8	7	8	7	16	H. A. Burr.
Rantoul.	do.	768	19	26.8	+ 1.1	48	26	- 3	6	28	2.50	+ 0.34	0.95	1.5	7	12	5	14	Wm. Breiner.
Robinson.	Crawford.	500	10	32.6	+ 1.2	50	26	5*	10	32*	2.25	- 0.88	1.05	4.0	7	11	4	16	A. P. Woodworth.
Summer.	Lawrence.	459	2	31.2		55	18†	- 7	7	29	1.60		0.51	5.0	8	10	4	17	O. A. Fyffe.
Tuscola.	Douglas.	644	17	27.8	+ 0.4	51	19	- 1	6†	31	2.98	+ 0.31	1.00	3.0	9	7	5	19	E. W. Lester.
Urbana.	Champaign.	725	8	27.0		47	26	- 1	6†	26	2.23		0.94	2.0	6	2	21	Prof. J. G. Mosier.	

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

Estimate by observer.

¶ Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for January, 1910. District No. 3, Ohio Valley.*

Stations.	River basins.	Day of month.																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.		
New York.																																			
Allegany.	Allegheny.	.02	.22	.23		.27	.40	.25		.10	.04		.10	.90			.75		.66	.36	.20		.02	.05	.35	.15	.05	.10	.09		5.31				
Bolivar.	do.	T.	.05		.20	.57	.27		T.	.02		.06	.44		T.	.70		1.30	.39	.05	T.	.03	.35	T.	.17	T.	.05	.05	4.75						
Franklinville.	do.	T.	.10	.10	.18	.36	.25	T.	.10	T.		T.	.82	T.	T.	.10	T.	.20	.95	.60	T.	T.	T.	.60	T.	T.	.05	.05	5.46						
Olean.	do.		.02	.08		.74	.50		*	.04		*	.72	.01		*.	.50	.68		24.1	.40	.22		*.	.32	.02	.04	.03	.14	5.70					
Maryland.																																			
Deer Park.	Youghiogheny	.26	.53	.18	.50	.20		.20						.30				.50				.63	.40								4.90				
Grantsville.	do.		.08		.32	.38	.08		.10				.80	.34	.20		.38				.92	.40								4.90					
Oakland.	do.		.18	.30		.12	.48	.08		.06			.04	.55	.50		.05	.85			.45	.25	.04	.06	.01	.04	.45	.42	.24	.14	.04	5.35			
Pennsylvania.																																			
Aleppo.	Ohio.	.05	.29		.32	.62	.15		T.	.10	.40	1.00	T.	.05		.08	1.24		1.00	.20				.18	.18	.03		.06		6.85					
Baldwin.	Allegheny.	.05	T.	T.	.35	.50	.25		.05	.50		T.	.35	.95			.50	.85			70.1	.23	.20	T.	.10	.45	T.	.10	.23	T.	.10	7.56			
Beaver Dam.	Ohio.	T.	.02	.07	T.	.86	.35		.02			T.	.24	.99	.03		.01	.82	.42		.33	.39	.15	T.	T.	.23	.03	T.	T.	.19	5.15				
Bradford.	Allegheny.	T.	.01	.08	T.	.68	.43	T.	.11				.42	.10			.73	.54			271.15	.13	T.	T.	.31	.07	.04	.02	.12	5.21					
California.	Monongahela.																																		
Clarion.	Allegheny.	T.	.03	.16		.44	1.04	.45		T.		T.	.98	.56	.05		.01	1.20		.78	.49	T.		T.	.32	.12	.25	.03	6.94						
Confluence.	Ohio.		.28	.12		.30	.90	T.	.05			T.	.20	1.45	.14		.76	.30			.01	T.	.38	.18	.30	.08	.08	6.82							
Davis Island Dam.	Youghiogheny	.01	.08	.08	T.	.82	.65	T.	T.				.28	1.23	.04		T.	.68	.16		.51	.74	.25	T.	T.	.09	.08	T.	T.	.19	5.96				
Derry Station.	Allegheny.	.10	.49		.57	1.01	.45	T.				.10	.90	.68			.03	1.00			.81	.33					.05	.65	.16	.06	7.39				
Franklin.	do.		.06	.08	.02	.01	.36	.62		.04			.04	.92			T.	.96	.34		24.1	.12	.60	T.	.50	.10	T.	.1	.18	7.41					
Freeport.	do.		.04	.08	.04		.1.04	.68		.02			.17	.93	.14		.02	.07	.21		.64	.95	.47	T.	T.	.21	.11	.10	T.	.30	7.12				
Greensburg.	Monongahela.	.02	.26	.08		.88	.90	.01		.01			.05	.48	.42	C.	.01	.00		.86	.80	.05		.01	.30	T.	.27	.10	.03	.03	6.58				
Greenville.	Youghiogheny	.06	.30	T.	.42	1.16	.37						T.	.43	.62			T.	.1.33	T.		.57	.95	.14	T.	T.	.03	.49	T.	.02	.14	.02	5.47		
Grove City.	Ohio.	.02	.03	.01	.09	T.	.43	.09		.06	T.			.28	.85			.07	1.08			.56	.75	.45	T.	.03	.50	1.20	.10	.05	.14	.03	7.71		
Herr's Island Dam.	Allegheny.	T.	.03	.08	.09	T.	.90	.76		T.				.23	1.05	.05	T.	.58	.19			.58	.45	.25	T.	T.	.08	.03	.07	T.	.19	5.56			
Indiana.	do.		.08	.60		.10	.30						.30	.30			T.	.1.00				.94	.1.00				T.	.08	.30	.25	.30		5.55		
Irwin.	Monongahela.	T.	.04	T.		.62	1.00	.36		T.	T.			.34	.56	.57	.03		.1.00			.87	.11	T.		.03	.19	T.	.15	.05	.07	5.99			
Johnstown.	Allegheny.	T.	.02	.29		.88	1.10	.18	T.	.04				.13	.32	.14			.58	.78				.75	.57			T.	.20	.23	.23	.14	T.	.16	7.81
Loch No. 4.	Monongahela.	T.	.17	.15		.1.02	.75	T.						.20	1.03	.05	T.	.65	.25			.60	.80	.10	T.	T.	.25	.15	T.	T.	.59	8.06			
Lyciups.	Allegheny.	.11	.57	T.	.34	1.18	.30		.03				.05	.70	1.22	.07	T.	.37				.82	.93	.30			.04	.38	.01	.41	.17	.12	8.62		
Parkers Landing.	do.	T.	.04	T.	.04	T.	.70	.30	T.	.06				.06	.60	.60		T.	.20	.34			.24	.80	.90	T.		.28	.12	T.	.04	.30	6.08		
Pittsburg.	Ohio.	T.	.11	T.	.66	.74	.11		.01	T.			.12	.97	.00			.30	.27				.89	.65	T.	T.	.12	.03	.07	T.	.19	5.33			
Saegerstown.	Allegheny.	.06	.11	.02	.35	.48	.22		.16	C.			.11	.51			.04	1.00				.57	.1.00				.02	.06	.14	T.	.03	.03	5.56		
St. Marys.	do.		.14		.10	.26	.18						.40	.40				.30	.43				.32	.30	.26	.10	.08					3.99			
Saltzburg.	do.	T.	.14	.10	T.	.1.00	.86	.02					.05	.05			.16	.1.16	.14			.02	.02	.20			.32	.18	.26	.02	.28	T.	.7.87		
Skidmore.	Ohio.	.90			.30	.70								.49					.75	.80				.50									7.50		
Somerset.	Youghiogheny.	.18			.75	.95	.09						.05	.75	.90	.20			.10	.1.35				.20	.80								8.91		
Springdale.	Allegheny.	.03	.09	.07		.1.03	.68		.01					.24	.80	.14			.02	.82	.14			.61	.67	.35						6.36			
Uniontown.	Monongahela.	.10	.30	T.	.40	.75	.80		.06				.06	.86	.59	.13			.40	1.04				.69	.92				.04	.37	.25	.12	.09	7.07	
Warren.	Allegheny.	.10			.70	.06	.16		.10					.60					.84				.60	.70				T.	.36		.30		4.52		
West Newton.	Youghiogheny.	.04	.12	.04	T.	.1.00	.78	.04		.01				.30	1.20	.08	T.	.66	.20				.56	.96	.12						6.03				
West Virginia.																																			
Arbovale.	Great Kanawha.																																		
Bankcroft.	do.		.03	.10	.08		.1.17	.65	T.					.1.09	.07	T.	T.	.13	.82	.28			.41	.40	.10	T.						5.68			
Beckley.	do.		.75																																
Ben's Run.	Ohio.	.27	.25			.40	1.40	.33						.05	.93	.57	.20	.10	.60	1.16				.77	.80						3.14				
Bluefield.	Great Kanawha.	T.																																	
Brandonville.	Monongahela.	.21	T.	.51	T.		.89	1.17						.50	.90																6.85				
Buckhannon.	do.	.30	.35			.15	.80	.56						.65	T.	.35	.30			.25	1.15				.74	.75						6.85			
Cairo.	Little Kanawha.																																		
Central Station.	Middle Island Creek.	.13	.42		.09	1.30	.50	T.						.02	.46	.41	.03		.20	.90				.92	.57	.03	T.					6.50			
Charleston.	Great Kanawha.	.10	.20			.95	1.20	T.																							5.35				
Creston.	do.																																		
Cuba.	Little Kanawha.	.08	.34		.21	.54	.30																									6.03			
Davis.	Monongahela.	.10	.10			.20	.45																									4.70			
Doane.	Big Sandy.																																		
Elizabeth.	Little Kanawha.	.14	.37			.52	T.																									2.54			
Elkhorn.	Big Sandy.	T.	.18	.20	T.	.33	.87	.07	T.	.01				.02	.66	.18	T.		.34	.87				.75	.20	T.	T.	.02	.34	.30	.37	T.	.06	5.77	
Fairmont.	Monongahela.	T.																																	
Glenville.	Great Kanawha.	.50	.40	T.	.28	.54	.38	.14	T.	.02				.80	.91	.02															6.96				
Green Sulphur Springs.	do.																																		
Hinton.	Great Kanawha.	.14	.02																																

TABLE 2.—*Daily precipitation for January, 1910. District No. 3—Continued.*

Stations.	River basins.	Day of month.																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
Ohio—Cont'd.																																		
Bladensburg.....	Muskingum.....			T.		.29	.80	.15		.10		.10	.55	.05		.40	.85		T.	.50	1.01	.10		T.	.05		T.	.15	T.	5.00				
Cadiz.....	Ohio.....	T.	.07	.12		41.1.2	.22		.03		.33	.07	.36		.32	.91		.82	.64	T.	T.	.01	.26		T.	.22	T.	6.89						
Cambridge.....	Muskingum.....	T.	.10		.23	.98	.21				.10	.80	.50		.23	.62		.25	.80			T.	.10		T.	.10	T.	4.98						
Camp Dennison.....	Ohio.....	T.	.02	.07	T.	11.69	.04		.03		.03	.14	.42	.17		.21	.34		.03	.21	.08	T.		T.	.32		T.	.10	T.	3.48				
Canal Dover.....	Muskingum.....			.12		241.01	.20		.03		.10	.10	.60		.16	.54		.43	1.00	.10	T.		T.	.32		T.	.10	T.	5.16					
Canton.....	do.....	.01	.02	.02		141.03	.14		.01	.02	.23	.52	.32		.40	.44		.56	.45	.04		.05	.22		T.	.10	T.	4.82						
Cardington.....	Scioto.....			.89	.61	.29				.10	.40	.03		.24	.35		.08	.70			T.		T.	.10	T.	3.67								
Cincinnati.....	Ohio.....	T.	.05	.01	T.	.34	.53			T.	.19	.1.47	.02	.01	.14	.28		.25	.08	.10	.01	T.		T.	.01	T.	T.	3.71						
Circleville.....	Scioto.....			.03	.15		.30	.69	.15		.10	.20		.38	.04		.28	.20	.10			T.	.08		T.	.10	T.	3.44						
Clarington.....	Ohio.....	.05	.03	.25		.25	.75	.25	.10	.05		.10	.90	.70	.01	.03	.1.50		.60	.20	.05		.02	.15	.02	.05	.10	.01	6.21					
Columbus.....	Scioto.....	T.	.01	.11	T.	311.10	.05	T.		.25	1.09	.03	.01	.68	.20		.24	.40	.43	T.	T.		T.	.14	T.	5.11								
Coshocton|||	Muskingum.....			.05	.15		.05	.03			.43	.85	.10		.05	.72	.30		.45	.35	.15			.01	.18		T.	.15	T.	5.04				
Dayton.....	Great Miami.....	T.	.02	.17		.14	.41	.02			.23	.14	.04	T.	.35			.22	.11	.13							T.	.03	T.	3.15				
Delaware.....	Scioto.....	T.	.01	.07		.13	.49	.01	T.	T.	.31	.83	.16		.52	.22		.03	.42	.37	T.	T.		T.	.02	T.	T.	3.84						
Demos.....	Ohio.....	T.	.10	.13	T.	.37	.63	.37		.03	.07	.61	.40	T.	.24	.23		.54	.41	.02		.02	.10	T.	.20	.02	T.	.10	T.	5.00				
Dennison.....	Muskingum.....	T.	.04	.11		.24	.78	.12	T.		.18	.71	.62	.04	.07	.05		.65	.46	T.	T.		T.	.25	.03	T.	.13	T.	5.47					
Frankfort.....	Scioto.....			.40	.05		.15	.10	.10		.90	.30		.20	.35		.25	.20							T.	.20	T.	4.20						
Garrettville.....	Mahoning.....			.03	.01	.12	.59	.14	.04		.11	.42	.74		.05	.93		.52	.22	.11	T.		.05	.26	.05	T.	.10	.04	4.56					
Granville.....	Muskingum.....	T.	T.			471.23	T.	T.		.13	1.01	.38		.49	.99		T.	.70	.49	T.	T.		T.	.05		T.	.05	T.	5.58					
Gratiot.....	do.....	T.	.10	.10	T.	231.39	.39	.26		.10	1.02	.90		.43	.75		.38	.80	.80	T.		T.	.08	T.		T.	.05	.22	T.	5.64				
Green.....	Ohio.....	.62	.35			.29	.73				*.	2.25			.15		*	.51	.05						T.	T.	T.	5.91						
Green Hill.....	Muskingum.....	T.	T.	.03	T.	.27	.71	.07	T.		T.	.50	.68	T.	.34	.07		.55	.34	T.	T.	T.	T.	.15	.20	T.	T.	T.	4.75					
Greenville.....	Great Miami.....	12				.50				.15	.89	.61	.05		.65	.10		T.	.33										3.44					
Hillsboro.....	Scioto.....	T.	.13		T.	.31	.48	.11			.03	1.48	.26		.23	.61		.13	.43	.06										T.	5.49			
Ironton.....	Ohio.....			.20		.31	.49	.10				.01	.07	.11		.29	.78			.53	.25									T.	5.08			
Jacksonburg.....	Great Miami.....					.28	*.	.58				*.	*.	.1.50			T.	T.	T.										T.	3.69				
Kenton.....	Scioto.....	.57	.03			.18	.30	.10				.21	.31	.33		.20	.49		.14	.49	.06									T.	4.51			
Killbuck.....	Muskingum.....			.05	.03	.03	.1.03	.20			.04	.50	.56		.25	.95		.50	.60											T.	5.18			
Lancaster.....	Ohio.....	.01	.15			.30	1.00	.15	T.		T.	.1.00	.40		.40	.50		.63	.65	T.	T.		T.	T.	T.	T.	T.	T.	T.	5.06				
Lawshe.....	do.....	.23				.31	.90	.30				.1.70	.22	T.		.22	.53		.04	.42	.10									T.	5.27			
McConnelsville.....	Muskingum.....	T.				.91	1.12	.34	T.			.02	1.62	.03		.74	.65		.71	.73										T.	7.00			
Marietta.....	Ohio.....	.05	.26			.35	1.31	.18				.1.00	.03	.01		.50	.85		.72	.22	T.		T.								T.	6.00		
Marion.....	Scioto.....	T.				.04	.53	.16	T.			.42	.80	.12		.26	.22		.35	.25	1.70		T.									T.	4.97	
Milfordton.....	Muskingum.....	T.	*	.02		.10	1.00	.03				.14	.72	.45	T.		.15	.75		T.	.47	.21	T.	T.							T.	4.27		
Milligan.....	do.....	.06				.22	1.35		T.			.03	1.50	.12		.65	.45		.72	.09											T.	5.50		
Millport.....	Ohio.....	.05	.03			.17	.88	.12				.14	.46	.59		.20	.88		.60	.20	T.		T.								T.	4.88		
Nellie.....	Muskingum.....	T.				.12	.10	.06				.09	.85	.52		.26	.50		.14	.16	.06	.25	T.									T.	3.61	
New Alexandria.....	Ohio.....	T.	T.	.03	.29		.30	1.59				.1.40	.80	T.		T.	.1.65		.50	T.	T.		T.	.40	T.	6.55								
New Berlin.....	Muskingum.....	T.	.02	.02		.20	.80	.20				.20	.32	.73		.20	.77		.50	.30										T.	4.82			
New Waterford.....	Ohio.....	.10				.39	*	.1.49	.10				*.	*.	.1.25			*.	.1.35											T.	5.86			
Ohio State University.....	Scioto.....	T.	.03	.12	T.	.12	.93	.04				.05	1.29	.09		.62	.31		.13	.54	.17									T.	4.60			
Pataksala.....	Muskingum.....			.17			.21	.25	.10			.16	.97	.41		.58	.58		.05	.61	.36	.01		T.	.15	.03	T.	5.71						
Philo(I).....	do.....	.07				.30	.92	.20	T.			.05	1.02	.38		.25	.58												T.	4.61				
Plattsburgh.....	Great Miami.....	T.	T.			.23	.60	.20				.32	1.06	.26		.66	.19		.06	.30										T.	3.98			
Pomeroy.....	Ohio.....	.09	.29			.30	1.59						.1.10	.20		.33	.63		.64	.20									T.	5.44				
Portsmouth|||	Scioto.....			.03	.20		.04	.75	.87				*.	1.81	.12	.02	.08	.00	.23											T.	4.46			
Rittman.....	Muskingum.....			.02			.10	.50				.35	.05	.03		.21	.15			.05	.00								T.	2.53				
Shenandoah.....	do.....			.02			.03	.29	.18				.25	.81	.05		.30	.25			.08	.57								T.	3.28			
Sidney.....	Great Miami.....	T.	.03			.17	.40	T.				.38	1.08	.05		*	.42	.22			.05	.16	.20							T.	3.30			
Somerset|||	Muskingum.....	T.	T.	.05	T.	.07	.09	.33	*	T.			.08	1.15	T.		.15	.26	T.	*	.40	.62	.20	T.	T.				T.	4.43				
Springfield.....	Great Miami.....	T.	.03	.14		.16	.47	.02				.28	1.10	.10		.43	.35		.09	.33	.20								T.	3.84				
Summerfield.....	Ohio.....	T.	.03	.17		.23	1.35	.34	.01			.00	.90	.44		.14	.21		.68	.63	T.			.19						T.	6.59			
Thurman.....	do.....	T.				.22						.00	.90	.44		.08	.18		.25	.63	T.			.20						T.	4.32			
Urbana.....	Great Miami.....	T.				.12						.18	.32	.15		.05	.18		.08	.16	.28									T.	2.95			
Warren.....	Mahoning.....	T.	.22			.27	.82	.12				.35	.36	.25		T.	.54			.62	.33	T.			T.	.53				</				

TABLE 2.—*Daily precipitation for January, 1910. District No. 3—Continued.*

TABLE 2.—Daily precipitation for January, 1910. District No. 3—Continued.

Stations.	River basins.	Day of month.																													Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Indiana—Cont'd.																																		
Bluffton.	Wabash.																																	2.92
Butlerville.	East Fork, White.	.18	.14	.85																													4.62	
Cambridge City.	Whitewater.	.01	.15																														3.23	
Columbus.	East Fork, White.	.10	.26	.55	.03																											4.01		
Connersville.	Whitewater.	.05	T.	.16	T.	.14	.34	.03																							4.03			
Delphi.	Wabash.	.03		.40																												2.74		
Eminence.	West Fork, White.		T.			.05	.03																									2.19		
Evansville.	Ohio.	.01	T.	T.	.88	.17																										2.59		
Farmersburg.	Wabash.		T.																														1.40	
Farmland.	West Fork, White.	.05																															2.95	
Greenfield.	East Fork, White.	T.																															4.49	
Greensburg.	do.	T.	.04																															
Heltonville.	Wabash.																																	
Huntingburg.	do.	T.	T.	.20																													2.88	
Huntington.	West Fork, White.	.01	.02	.02	.02	.40																											2.42	
Indianapolis.	Ohio.	T.	.03	T.	.36	.77	.01																										2.62	
Jeffersonville.	Wabash.	T.	T.	.50																													3.16	
Judyville.	do.	T.	T.	.18	T.																												0.88	
Kokomo.	Lafayette.		T.	T.	.35																												2.97	
Logansport.	do.																																2.33	
Madison.	Ohio.	.06																															3.65	
Marengo.	do.																																3.85	
Marion.	Wabash.	T.																															1.85	
Markle.	do.	T.																															1.85	
Mauzy.	East Fork, White.	T.	.01	.14																												3.41		
Moore's Hill.	Ohio.	.04																															3.36	
Mount Vernon.	do.																																	
Paoli.	East Fork, White.																																2.96	
Princeton.	Wabash.																																1.84	
Richmond.	Whitewater.	.03	.07	.04																													3.04	
Rochester.	Wabash.																																2.67	
Rockville.	do.	T.																															1.95	
Rome.	Ohio.	.02	.05																														3.37	
Salamonia.	Wabash.																																3.44	
Salem.	Ohio.	T.	.05																														4.00	
Scottsburg.	East Fork, White.	.08																															3.33	
Seymour.	do.	T.																															3.09	
Shelbyville.	Terre Haute.	T.																															2.58	
Terre Haute.	Wabash.																																	2.51
Veedersburg.	do.	T.	.02	T.	T.	.35																										3.41		
Vevay.	Ohio.	T.																															3.41	
Vincennes.	Wabash.	T.	.15	T.	.50	.45																										3.50		
Washington.	West Fork, White.	.04	.04																														2.68	
Whitestown.	do.																																2.59	
Winona Lake.	Wabash.	T.																															2.09	
Worthington.	West Fork, White.																																3.08	
Illinois.	Wabash.	T.																																
Albion.	do.																																	2.55
Charleston.	do.	.01																															2.01	
Equality.	do.	T.	T.																														2.37	
Fairfield.	Ohio.																																2.40	
Flora.	Wabash.																																	
Golconda.	Ohio.	.03	T.	.69	.53																												3.08	
Hooperston.	Wabash.	T.	.02	.95																													3.09	
McLeansboro.	do.																																1.33	
Martinsville.	do.																																	
Mt. Carmel|||	do.	T.	.06	.60	.80																											3.44		
New Burnside.	Ohio.																																3.06	
Olney.	Wabash.	.12	T.	.71	.14																											2.97		
Palestine.	do.																																2.71	
Paris|||	do.	T.	T.	.60	.23																											2.60		
Philo.	do.	T.																															2.28	
Rantoul.	do.	T.	T.	.65																													2.50	
Robinson.	do.																																2.25	
Sumner.	do.					</td																												

TABLE 3.—*Maximum and minimum temperatures at selected stations, January, 1910. District No. 3, Ohio Valley.*

Date.	Pennsylvania.								West Virginia.								Ohio.								Dayton.																											
	Greenville.				Pittsburg.				Charleston.				Elkhorn.				Glenville.				Huntington.				Morgantown.				Parkersburg.				Wheeling.				Canton.				Cincinnati.				Columbus.				Dayton.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
1...	40	5	46	30	41	27	48	25	51	15	46	15	58	38	45	29	52	29	50	19	40	20	53	34	46	28	44	32	42	30	48	37	46	33	47	33	47	32	42	32												
2...	42	30	48	35	57	35	52	38	55	45	57	37	62	42	50	39	53	40	46	34	42	32	54	37	46	33	47	33	47	32	42	32	42	32	42	32	42	32														
3...	31	22	37	18	65	37	60	42	56	26	59	34	58	18	47	32	45	24	39	36	32	15	39	18	36	15	39	18	36	15	39	18	36	15	39	18	36	15	39	18												
4...	22	3	30	7	37	20	48	25	29	14	35	16	47	18	32	8	26	14	39	9	19	4	27	14	23	8	23	10	23	8	23	10	23	8	23	10	23	8	23	10												
5...	38	16	46	28	52	20	57	27	46	27	50	24	53	30	47	18	45	28	45	2	40	18	48	24	42	23	42	23	42	23	42	23	42	23	42	23	42	23														
6...	38	16	41	20	48	33	61	35	41	33	42	32	51	15	45	36	49	19	28	27	34	15	24	15	23	14	23	13	23	13	23	13	23	13	23	13	23	13														
7...	21	2	20	8	33	8	50	14	35	10	33	16	19	5	37	13	19	5	21	14	16	4	19	6	16	3	16	3	16	3	16	3	16	3	16	3	16	3														
8...	26	-10	30	8	33	8	40	12	37	4	37	1	32	5	32	9	32	1	32	1	32	1	34	6	27	5	27	3	27	3	27	3	27	3	27	3	27	3														
9...	24	4	28	13	33	16	46	14	33	13	37	10	32	9	31	18	27	9	23	5	23	10	27	12	26	9	27	10	26	9	27	10	26	9	27	10																
10...	26	-1	24	12	31	12	28	10	23	4	31	4	28	9	24	10	28	1	28	2	22	-1	26	1	22	3	26	3	26	3	26	3	26	3	26	3																
11...	27	-7	36	10	45	16	41	15	42	7	43	10	42	14	37	9	39	10	39	2	30	1	41	15	35	12	36	11	36	11	36	11	36	11																		
12...	38	26	38	33	45	30	45	17	42	25	40	24	39	28	40	33	39	33	34	30	40	34	37	33	37	34	37	34	37	34	37	34	37	34																		
13...	23	29	45	35	45	35	50	36	39	31	40	31	45	34	38	32	32	34	34	30	30	34	35	39	33	41	34	39	33	41	34	39	33	41	34																	
14...	35	27	42	32	45	34	51	28	40	29	39	24	36	26	42	32	43	28	38	34	36	26	36	26	36	26	36	26	36	26	36	26	36	26																		
15...	33	17	38	24	36	21	38	25	30	24	34	24	36	26	31	26	33	24	30	26	32	22	32	22	32	22	32	22	32	22	32	22	32	22																		
16...	29	17	36	19	44	29	46	20	43	11	43	26	40	28	38	22	39	26	37	26	36	21	37	27	36	25	36	25	36	25	36	25	36	25																		
17...	37	20	43	29	47	34	44	33	47	29	43	26	51	27	48	21	48	25	47	23	48	23	47	32	48	32	47	32	48	32	47	32	48	32																		
18...	43	34	50	35	56	40	58	39	55	32	59	39	52	39	51	36	51	35	50	34	52	35	50	34	52	35	50	34	52	35	50	34	52	35																		
19...	37	25	39	29	51	32	45	29	41	23	48	31	50	29	41	29	48	31	49	29	36	24	44	29	36	24	44	29	36	24	44	29	36	24																		
20...	44	19	51	37	58	30	58	23	59	24	61	26	59	24	63	53	66	36	56	35	61	32	66	36	56	35	61	32	66	36	56	35	61	32																		
Mns	34.1	16.6	37.8	23.8	45.0	27.9	48.2	24.2	40.6	22.0	43.6	23.6	42.5	24.3	39.9	24.6	39.4	24.6	42.6	23.9	40.7	23.7	32.6	19.3	39.3	24.7	34.7	21.8	38.5	22.9	34.7	21.8	38.5	22.9	34.7	21.8	38.5	22.9														

Date.	Ohio.								Virginia.								Tennessee.								Dayton.																															
	Marion.				Waynes.				Big Stone Gap.				Wytheville.				Asheville, N. C.				Decatur, Ala.				Chattanooga.				Jonesboro.				Knoxville.				Nashville.				Palmetto.				Sparta.				Waynesboro.				Beattyville, Ky.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
1...	43	28	44	34	36	15	44	28	55	24	63	26	58	39	55	39	61	46	60	40	58	40	62	45	65	59	63	31	63	31	63	31	63	31	63	31	63	31	63	31	63	31	63	31	63	31	63	31								
2...	44	32	53	36	40	34	54	44	67	44	63	41	62	55	67	43	64	39	63	34	62	35	66	55	68	58	68	58	68	58	68	58	68	58	68	58	68	58	68	58	68	58	68	58	68	58										
3...	35	20	46	31	55	38	56	36	60	39	69	58	67	43	60	50	50	37	61	30	58	32	62	35	65	53	65	53	65	53	65	53	65	53	65	53	65	53	65	53	65	53	65	53												
4...	26	8	32	14	50	32	40	27	55	36	65	37	58	38	55	38	50	41	57	26	55	28	60	32	62	35	65	35	65	35	65	35	65	35	65	35	65	35	65	35	65	35														
5...	33	18	44	23	41	23	41	23	47	27	55	27	55	40	50	41	57	32	55	33	57	31	58	32	61	35	65	35	65	35	65	35	65	35	65	35	65	35	65	35	65	35	65	35												
6...	35	12	40	16	58	34	60	46	53	40	50	35	49	20	47	17	48	27	41	28	47	24	48	25	51	18	50	22	48	25	51	18	50	22	48	25	51	18	50	22	48	25	51	18												
7...	22	6	19																																																					

TABLE 3.—*Maximum and minimum temperature at selected stations, January, 1910. District No. 3—Continued.*

Date.	Kentucky.										Indiana.																	
	Bowling Green. #		Erlington. #		Greensburg. #		Lexington.		Louisville.		Maysville. #		Williamsburg. #		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.		Philo, Ill.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1..	58	23	60	30	61	15	51	35	56	39	53	18	67	18	48	32	55	40	46	32	41	27	42	32	40	18	39	26
2..	61	44	56	33	61	41	57	43	56	38	54	36	65	41	50	34	52	35	43	32	41	29	37	32	46	34	36	26
3..	43	39	34	33	55	51	57	23	43	32	45	36	67	57	35	22	35	22	33	13	30	13	34	16	36	30	30	13
4..	58	25	59	25	57	23	32	18	36	19	47	16	51	29	25	15	47	21	30	10	20	7	25	11	30	18	23	5
5..	50	40	38	25	55	22	48	28	54	24	48	16	52	30	42	24	47	17	36	16	34	18	34	17	39	18	33	12
6..	23	20	16	15	32	20	28	12	24	13	23	20	36	33	28	13	17	6	16	8	19	6	18	6	35	13	12	0
7..	23	4	26	— 3	21	3	14	4	20	4	21	5	39	12	16	4	22	1	18	0	18	0	22	2	15	6	25	0
8..	37	3	40	8	37	— 7	29	7	35	11	35	11	43	10	30	8	33	14	32	10	31	14	33	15	20	2	32	18
9..	35	5	33	9	35	— 8	27	13	30	15	31	6	38	12	25	12	29	15	23	13	26	12	25	12	32	9	24	8
10..	39	3	36	— 2	43	— 7	25	7	29	6	33	— 7	40	11	25	5	32	8	24	7	26	4	28	8	21	4	27	4
11..	46	11	46	2	48	— 7	40	18	44	18	44	— 8	51	16	40	16	43	23	37	18	34	19	37	23	30	— 1	35	22
12..	51	30	49	30	54	5	44	33	46	38	44	6	56	16	40	33	46	40	37	34	36	31	37	34	38	21	35	33
13..	52	38	49	40	51	30	45	34	47	38	44	24	57	34	42	35	45	35	40	33	36	33	40	33	44	42	37	33
14..	35	32	34	33	34	31	34	26	38	29	35	32	37	35	41	26	35	31	33	26	36	25	34	27	43	32	33	27
15..	35	28	32	30	33	26	28	24	32	29	31	23	42	27	32	26	33	29	30	25	34	24	30	25	32	29	30	24
16..	43	24	44	25	41	22	37	26	37	28	41	23	42	19	34	26	36	30	31	26	31	27	32	28	32	29	32	27
17..	57	34	59	31	57	22	52	33	55	37	57	27	62	35	50	31	56	36	51	31	41	30	47	31	37	29	46	31
18..	57	43	48	38	55	40	50	34	53	36	53	35	53	40	52	34	54	36	52	30	49	29	52	31	56	36	47	28
19..	59	30	59	33	58	22	51	30	55	34	55	25	58	28	57	28	54	33	48	28	43	22	48	26	42	28	46	26
20..	47	38	45	37	48	22	46	35	46	36	51	23	52	28	45	38	45	35	42	32	42	33	45	33	49	29	47	32
21..	28	26	34	32	28	26	35	19	36	23	33	30	30	28	40	22	35	22	32	20	35	23	34	19	43	25	32	19
22..	47	18	40	19	39	17	24	17	32	21	30	19	35	18	35	19	34	19	32	19	28	19	27	19	25	21	29	18
23..	60	24	45	21	38	18	44	23	49	32	48	26	38	15	45	22	50	33	42	28	37	23	41	26	33	21	37	24
24..	40	35	43	25	45	17	37	27	37	28	41	28	43	28	36	24	37	28	32	27	31	25	33	26	47	26	32	24
25..	49	24	57	23	60	16	38	23	41	24	44	12	48	19	37	20	46	29	36	24	36	16	38	20	36	19	38	22
26..	68	35	67	29	62	18	60	38	64	38	61	21	60	32	60	33	60	44	56	35	51	31	53	33	50	28	49	34
27..	55	34	47	33	65	20	47	32	46	34	41	37	57	38	48	28	44	36	37	29	36	31	38	29	36	28	38	28
28..	52	25	37	27	29	22	38	23	43	27	42	31	39	25	38	24	43	30	32	26	33	23	32	23	36	23	32	23
29..	57	22	48	22	48	18	38	23	42	27	41	29	49	12	37	24	42	27	35	24	33	25	35	12	39	23	33	23
30..	52	35	35	25	45	18	40	24	35	27	36	25	56	25	32	26	37	26	31	24	30	24	31	24	36	27	31	22
31..	35	19	34	18	35	18	27	20	30	25	31	23	32	23	29	13	31	25	28	17	26	13	28	12	31	18	26	5
Mns	46.8	26.2	43.5	23.9	45.9	18.5	39.5	24.4	41.6	26.5	41.3	20.4	47.9	25.9	38.2	22.5	41.1	26.6	35.3	22.5	33.7	21.2	35.2	22.4	37.2	21.6	33.7	20.5